

# IDAHO

## DEPARTMENT OF FISH AND GAME

**Jerry M. Conley, Director**

GRACE HATCHERY

Annual Report



1 October 1983 - 30 September 1984

by  
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## GRACE HATCHERY

### Annual Report

#### ABSTRACT

During the 1984 fisheries year, the Grace Hatchery received 2,286,420 eyed eggs from commercial, federal and state sources. In addition, we received 834,904 green early strain kokanee eggs from the Anderson Ranch Reservoir trapping effort. Rainbow, two strains of cutthroat, Henrys Lake cutthroat hybrids, brown trout, mackinaw and kokanee salmon were reared at Grace Hatchery this year.

One hundred sixteen thousand, eight hundred and ninety-seven (116,897) pounds, 2,000,645 fish, were reared from these eggs for stocking in the waters of Idaho.

One hundred eighty-nine thousand, four hundred and twenty (189,420) pounds of feed were fed to these fish, giving a conversion of 1.60 pounds of feed for each pound of fish produced. The cost per pound of fish was \$0.32.

The St. Charles Creek trapping effort was successful again this year, with 274,563 eggs taken for rearing and return to Bear Lake.

The number of visitors has dropped, probably because of the fishing closure on the settling pond.

The entire staff at the station was replaced due to promotions and lateral transfers.

Author:

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## **OBJECTIVES**

1. To rear 120,000 pounds of trout, mostly rainbow, for a five county area of Southeastern Idaho. Streams, rivers, lakes and reservoirs of Franklin, Bear Lake, Caribou, Oneida and Bingham counties were stocked.
2. To operate a fish trap on St. Charles Creek, a tributary to Bear Lake. Adult Bear Lake cutthroat are trapped in May and transported to the state of Utah's Swan Creek holding pens and trap for spawning. Utah personnel spawn these fish and return them to the lake. The eggs are water hardened and taken to Utah's Mantua Hatchery for rearing and stocking back into the lake as fingerlings. This is a joint effort with Utah to enhance and insure the future of this type of fish in Bear Lake.
3. To rear other species of trout for the waters of Idaho when space is available.

## **INTRODUCTION**

Grace Hatchery was constructed in 1946. It is located in Southeastern Idaho in Caribou County. We are eight miles from the small town of Grace, Idaho.

The hatchery is spring fed and the springs form a small creek known as Whiskey Creek. The water temperature remains a constant 52°F year round. Water flows vary from year to year depending on snow pack and irrigation needs by local farmers. Low flows of 9 cfs to high flows of over 20 cfs have been recorded. Water quality is excellent for cold water fish culture.

The egg incubation room, 16 hatchery vats, a small shop, a feed storage room and a storage room are housed in a large wooden building.

There are eight nursery raceways, four measure 60 feet long and 7 feet wide and four measure 60 feet long and 3 feet wide. There are 4 small production raceways, 100 feet long and 4 feet wide, and six large production raceways measuring 300 feet long and 14 feet wide.

The buildings on the property include housing for three permanent employees, one two-car and one four-car garage, two small storage buildings and an office building. The office building contains a garage, public restrooms, an office and an apartment to house temporary employees.

## FISH PRODUCTION

The eggs received and hatched at Grace Hatchery during the year are as follows:

<u>Species</u>	<u>Number of eggs</u>
Rainbow trout	927,572
Cutthroat (fine spotted)	441,216
Cutthroat (Bear Lake)	350,904
Cutthroat (Henry's Lake hybrid)	138,024
Brown trout	249,600
Mackinaw	179,104
Kokanee salmon (early)	834,904
Total	3,121,324

The following is a breakdown of fish stocked or transferred by species and size:

Table 1. Fish stocked or transferred from Grace Hatchery.

<u>Species</u>	<u>Size</u>	<u>Number</u>	<u>Pounds</u>
Rainbow trout	6-inch plus	325,743 fish	85,000 pounds
	3-6 inch	134,045 fish	3,475 pounds
	0-3 inch	192,780 fish	315 pounds
Cutthroat (Bear Lake)	3-6 inch	423,150 fish	21,000 pounds
Cutthroat (fine spotted)	0-3 inch	311,879 fish	4,766 pounds
Cutthroat (Henry's Lake hybrid)	0-3 inch	59,519 fish	134 pounds
Mackinaw	3-6 inch	71,504 fish	872 pounds
Brown trout	0-3 inch	207,025 fish	1,225 pounds
Kokanee (early)	0-3 inch	275,000 fish	110 pounds
Total		2,000,645 fish	116,897 pounds

The fish feed consumed by our fish during the year is as follows:

Swim-up: 750 lbs.  
No. 1: 2,200 lbs.  
No. 2: 2,500 lbs.  
No. 3: 8,600 lbs.  
No. 4: 25,900 lbs.  
No. 5: 15,400 lbs.  
Bulk 3/32 and 1/8: 21,400 lbs. and 112,660 lbs.

The total cost of this feed totaled \$37,847.53. This calculates out to 1.60 pounds of feed for each pound of fish raised this year at a feed cost of \$0.32 per pound of fish produced.

#### **FISH HEALTH**

Fish health was excellent overall for the 1984 growing season. Grace Hatchery experienced a minor outbreak of Enteric Redmouth disease (Yersinia ruckeri) in one raceway of catchable rainbow. Minor coldwater disease (Cytonhaga psychrophila) and bacterial gill disease outbreaks also occurred. Routine treatments controlled these problems.

#### **ST. CHARLES CREEK TRAPPING**

Robert Hill operated the St. Charles Creek fish trap this year from May 7 to June 14. The trap is installed on St. Charles Creek, a tributary to Bear Lake, in a cooperative effort with the state of Utah Division of Wildlife Resources to trap adult Bear Lake cutthroat. A total of 89 females and 38 males were trapped and taken to the Swan Creek holding pens to be ripened and spawned. Two hundred seventy-four thousand, five hundred sixty-three (274,563) eggs were taken from these fish to be reared at the Mantua Hatchery and returned to the lake as fingerlings. There were a few problems caused by run-off due to a cool spring this year. We released 15 of each sex above the trap to spawn naturally.

#### **HATCHERY IMPROVEMENTS**

The only capital outlay item purchased was a 3-inch trash pump for pumping settleable solids and for fire control. Many portable hand and power tools were obtained to make work more efficient on the station.

Improvements to the existing structures included a partition wall in the four-car garage, a cover over the heating fuel tank at residence 1, new upwelling incubators for the hatchery vats and some finish work in the basement of residence 3.

## **PUBLIC RELATIONS**

There were approximately 1,500 visitors at Grace Hatchery this year. These included elementary school students, scout groups and other people interested in our operation. The settling pond remained closed to protect hatchery property; this is probably the reason for the reduced visitation rate.

## **MISCELLANEOUS**

All of the personnel at Grace Hatchery were moved during the fisheries year 1984. Tom Frew was promoted to Hatchery Superintendent I at Henrys Lake Hatchery in February, and Ed Schriever was hired to take his place. Dan Beers took a lateral transfer to the Sandpoint Hatchery and Ted Packard took a lateral transfer from Ashton to fill Dan Beers' position as Hatchery Superintendent I. Finally, Jerry Mowery was promoted to Hatchery Superintendent III at Niagara Springs, and Tom Frew was promoted to fill Jerry's Hatchery Superintendent II vacancy.

## **RECOMMENDATIONS**

We still need to have the large production raceways rebuilt. The walls are deteriorating badly, and the roadways are difficult to drive on during the spring and fall due to the deep mud.

A new set of nursery raceways should be designed and built to accommodate the large number of different species the station deals with during the year.

We still need a two-car garage built for residence 3 for keeping personal equipment stored during our severe winter months.

A new tractor should be purchased for snow removal. It should be equipped with a bucket and snow blower." We have a very difficult time keeping the roads and working areas cleared during the winter months.

## **ACKNOWLEDGEMENTS**

Jerry Mowery, Fish Hatchery Superintendent II; Tom Frew, Fish Hatchery Superintendent II; Dan Beers, Fish Hatchery Superintendent I; Ted Packard, Fish Hatchery Superintendent I; Ed Schriever, Fish Culturist; Robert Hill, Bio-Aide; Tony Beckstead, JTPA.